IT'S ALL ABOUT THE WATER

2009

Department of Public Works

Water Division

Annual Water Quality Report

M06010707
City of St. Charles Water Division
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What Is The Source Of My Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity. Our drinking water is supplied from another water system through a Consecutive Connection (CC). To find out more about our drinking water sources and additional chemical sampling results, please contact our office.

Our Water Comes From The Following Sources:

Source Name	Type
Well #4	Ground Water
Well #5	Ground Water
Well #6	Ground Water
Well #7	Ground Water
Well #8	Ground Water
Well #9	Ground Water
CC 1 St. Louis City M06010715	Surface Water

Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. The process involved the establishment of source water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps & summary information sheets are available on the internet at *http://maproom.missouri.edu/swipmaps/pwssid.htm*. To access the maps for your water system you will need the State assigned identification code, which in printed at the top of this report. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

DON'T DRAIN IT !!!

These items should never go down the drain:

- Fats, Oils & Grease
- Paint, Paint Thinner & Chemicals
- Medicine
- Motor Oil, Gasoline & Anti-Freeze
- Pesticides
- Solvents

Why Are There Contaminants In My Water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants & potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
B. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
E. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
In order to ensure that tap water is safe to drink, the Department of Natural Resources prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Important Health Information

Do I need to take any special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general public. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Community Involvement

The Board of Public Works is comprised of six (6) City residents and one (1) City Councilmember that meet regularly on the second Thursday of each month with the Public Works Department staff for review, discussion, and recommendations regarding waterworks operations, contractual agreements and expenditures of waterworks funds. The St. Charles City Council receives recommendations from staff and the Board of Public Works regarding contractual agreements and expenditures of waterworks funds. The City Council's regularly scheduled meetings are held on the first and third Tuesday of each month. The meeting schedules for the City Council and the Board of Public Works can be found by visiting the City's website, which is www.stcharlescitymo.gov

REGULATED CONTAMINANTS							
Regulated Contaminants	Collection Dates	Highest Value	Range	Unit	MCL	MCLG	Typical Source
BARIUM	08/21/08	0.0707	0.0707	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries, Erosion of natural deposits
FLUORIDE	08/21/08	0.92	0.92	ppm	4.0	4	Natural deposits; Water additive which promotes strong teeth

Disinfection By Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results Were Found in The Calendar Year of 2009							

Lead & Copper	Date	90th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER	2008-2010	0.0239	0.001-0.0459	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2008-2010	1.51	1.34-101	ppb	15	1	Corrosion of household plumbing systems

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results Were Found in The Calendar Year of 2009				

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG
ALKALINITY, CaCO3 STABILITY	08/21/08	80.9	80.9	MG/L		
ALKALINITY, TOTAL	08/29/05	84.9	84.9	MG/L		
CALCIUM	08/21/08	29	29	MG/L		
CHLORIDE	08/21/08	14.7	14.7	MG/L	250	
HARDNESS, CARBONATE	08/21/08	104	104	MG/L		
IRON	08/21/08	0.0101	0.0101	MG/L	0.3	
MAGNESIUM	08/21/08	7.54	7.54	MG/L		
MANGANESE	08/21/08	0.0026	0.0026	MG/L	0.05	
pH	08/21/08	9.76	9.76	pH	8.5	
POTASSIUM	08/21/08	1.69	1.69	MG/L		
SODIUM	08/21/08	12.1	12.1	MG/L		20
SOLIDS, TOTAL DISSOLVED (TDS)	08/21/08	175	175	MG/L	500	
SULFATE	08/21/08	32.4	32.4	MG/L	250	

Violations & Health Effect Information

During the 2009 calendar year, we had the below noted violation(s) of drinking water regulations:

No Violations Occurred in the Calendar Year of 2009

During the 2009 calendar year, the water system that we purchase water from had the below noted violation(s) of drinking water regulations:

No Violations Occurred in the Calendar Year of 2009

RESELLER CONTAMINANTS								
Regulated Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ATRAZINE	05/11/09	St. Louis City	0.51	0.51	ppb	3	3	Runoff from herbicide used on row crops
FLUORIDE	06/10/07	St. Louis City	1.21	0.84-1.21	ppm	4	4	Natural deposits; Water additive which promotes strong teeth
Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	
ALKALINITY, TOTAL	01/20/09	St. Louis City	213	110-213	MG/L			
CARBON, TOTAL	06/17/09	St. Louis City	7.88	2.56-7.88	ppm			Naturally present in the environment
Disinfection By Products	Monitoring Period	Water System	Highest RAA	Range	Unit	MCL	MCLG	
TOTAL HALOACETIC ACIDS (HAA5)	2009	St. Louis City	17.85	15.8-19.9	ppb	60	0	By-product of drinking water disinfection
TTHM	2009	St. Louis City	17.15	15.1-19.2	ppb	80	0	By-product of drinking water disinfection

Definitions

MCLG: Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. MCL: Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology · AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. TT: Treatment technique, a required process intended to reduce the level of a contaminant in drinking water · 90 percentile: For lead and copper testing. 10% of test results are above this level and 90% are below this level. – Level Found: is the average of all test results for a particular contaminant. – Range of Detections: Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Level Found.

Abbreviations:

PPB: parts per billion or micrograms per liter · ppm: parts per million or milligrams per liter · n/a: not applicable · NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water · MFL: million fibers per liter, used to measure asbestos concentration. · nd: not detectable at testing limits.

The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative.